

Title (en)

Wobble plate type refrigerant compressor.

Title (de)

Taumelscheibenkühlungsverdichter.

Title (fr)

Compresseur de réfrigération du type à plaque de nutation.

Publication

**EP 0530730 A1 19930310 (EN)**

Application

**EP 92114865 A 19920831**

Priority

JP 7751191 U 19910902

Abstract (en)

A wobble plate type refrigerant compressor (10) is disclosed which includes a compressor housing (11) having a crank chamber (112) and a cylinder block (111) which is provided with an axial central bore (113) and a plurality of cylinders (31). A plurality of pistons (32) are slidably fitted within each of the cylinders (31). A wedge-shaped cam rotor (20) is disposed within the crank chamber (112) to rotate together with a drive shaft (16). A wobble plate (22) is coupled to the pistons (32) through each corresponding connecting rod (33). The wobble plate (22) is disposed on the inclined surface of the cam rotor (20) to convert rotating motion of the cam rotor (20) into reciprocating motion to be imparted to the pistons (32) while preventing the rotating motion of the wobble plate (22). A first bevel gear (23) is fixed on the wobble plate (22) and a second bevel gear (23) connected thereto is supported by the cylinder block (111). The second bevel gear (26) includes a shank portion which is non-rotatably disposed within the central bore of the cylinder block (111) by means of at least one engaging mechanism, such as a key/groove mechanism (30), provided between the second bevel gear (26) and the cylinder block (111). The first (23) and second bevel (26) gears intermesh through spherical member to prevent rotation of the wobble plate. The engaging mechanism includes an axial hollow space or groove formed between the shank portion of the second bevel gear (26) and the cylinder block (111), and a rod member or key (30) fittingly disposed within the axial hollow space. The engaging mechanism further includes a dampening member of vibroisolating member for dampening torque which acts on the shank portion of the second bevel gear to thereby reduce vibration and noise. <IMAGE>

IPC 1-7

**F04B 27/08**

IPC 8 full level

**F04B 27/08** (2006.01); **F04B 27/10** (2006.01)

CPC (source: EP US)

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Citation (search report)

- [A] EP 0326043 A1 19890802 - SANDEN CORP [JP]
- [AD] US 4444549 A 19840424 - TAKAHASHI HARUO [JP], et al

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DOCDB simple family (application)

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